CHAPTER XI – UTILITIES & LOCAL GOVERNMENT FACILITIES

This chapter's focus is on utilities – sewer, water, solid waste, gas, electric, renewable energy – along with local government facilities that serve Scott County; particularly its unincorporated area. The location, quality, capacity, and planned improvements to these utilities and facilities can influence the pattern and pace of development. This chapter begins with an inventory of existing utilities, facilities and services provided by city, town, county, and regional governments and private companies.

Projected growth in population, housing, and jobs in Scott County will necessitate the need for additional utilities and services over the 25-year planning period. Therefore, this chapter's goals and policies for improvements to utilities, facilities and services are coordinated with other chapters, such as housing, economic competitiveness, safe, healthy & livable communities, transportation, and land use.

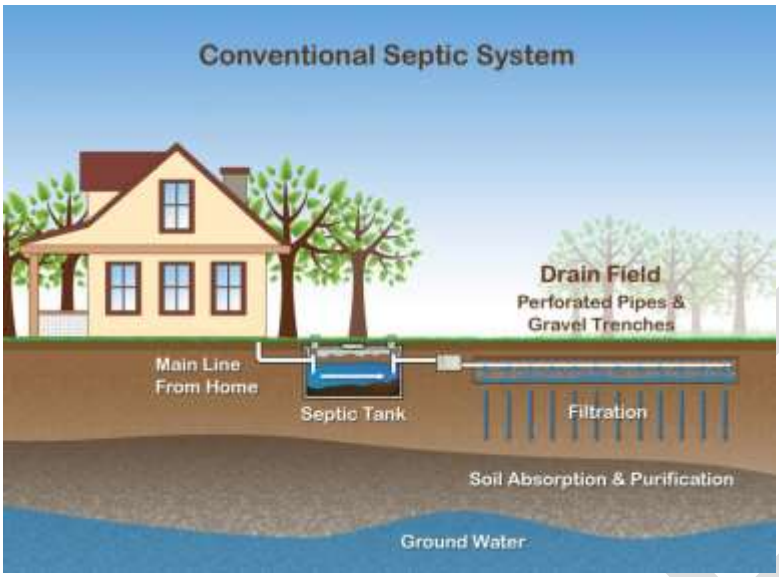
SEWAGE TREATMENT SYSTEMS

In Scott County, wastewater is disposed of by two broad methods: municipal- or regional-owned and maintained sewer systems or private on-site sewage treatment systems. Most of the county's population is located within a city and is served by a municipal or regional sewer system. Most homes and businesses in the county's townships are served by a private on-site system. There are several community sewage treatment systems (CSTS) in the county that combine public ownership but use technology closer to that of private on-site sewage treatment systems. The more traditional, big-pipe public sewer service does not exist in the townships (with the exception of some retrofitted lakeshore properties around Cedar Lake and Spring Lake) primarily due to the low density of homes. In the townships, there is generally sufficient lot area (one acre of non-hydric soil or larger) for an individual sewage treatment system and an average sized house. The following describes in more detail common wastewater treatment systems serving Scott County.

A. Individual Sewage Treatment Systems (ISTS)

All individual sewage treatment systems (ISTS) are required to meet the standards set forth in Scott County's Individual/Community Sewage Treatment System Ordinance No. 4. The standards include acceptable treatment systems, as well as size requirements and setback requirements from adjacent lots, bluffs, wells, and water bodies. As of 2016, there are approximately 7,490 individual treatment systems in the eleven townships (up from 7,307 systems a decade ago). There are another 1,111 systems in the rural portions of incorporated cities (down from 1,320 a decade ago). The assortment of on-site septic systems still operating

on properties within the cities are often the remnants of historic annexations or incorporations that occurred where large portions of a township came under city jurisdiction.



Scott County has developed an ISTS maintenance program to ensure existing systems are properly maintained in accordance with Metropolitan Council requirements and Minnesota Pollution Control Agency (MPCA) Rule 7080. The County's Environmental Health Department notifies homeowners every three years unless verification is received that their septic tank has been recently inspected/pumped.

The County has a tracking and notification database to issue permits for pumping septic tanks as a means to record maintenance, provide enforcement for failing systems, and pay for the cost of the program. This notification program includes the eleven townships and all non-serviced areas within the cities. If septic systems are found to require repair or replacement, a reasonable timeline for conformance is established based on the potential impact to public health or safety and state laws. For example, systems discharging to the surface pose an imminent public health or safety threat and must, by state law, be replaced within ten months of notification. However, systems that might appear to be otherwise functioning but upon closer examination are found to be constructed too close to the ground water tables as established by state regulations are required to be reconstructed according to the geology of the area and the relative risk to ground water. This timetable is established in acknowledgment of Scott County's specific geology and may range from ten months to ten years.

In 2014 Scott County started a low interest loan program through the Minnesota Department of Agriculture's Best Management Practices loan program. The County offers loans to property owners that have a failing or non-compliant septic system, with interest rates from 0% to 3%, depending on household income. Minimum qualifications for this program include: County property taxes must be current (do not owe any back taxes), and the septic system is considered failing. The loan is for ten years and it is payable with property taxes. Since 2014, about 15 property owners a year have utilized this loan program.

B. Community Sewage Treatment Systems (CSTS)

In 2001, Scott County introduced a new method in managing sewage from homes in rural developments. This method is commonly known as Community Sewage Treatment Systems, or CSTS. Some of the technology for these community systems has been around for years. For example, there are mobile home parks and several campgrounds that have been served by large on-site sewage systems for several decades. New CSTS systems are essentially larger versions of a standard home ISTS with two unique differences. CSTSs are required to include some measure of pre-treatment of the sewage in addition to the standard requirements for an ISTS.

Secondly, CSTSs are publicly owned and operated by a subordinate service district which is established by the township within which the CSTS is located.

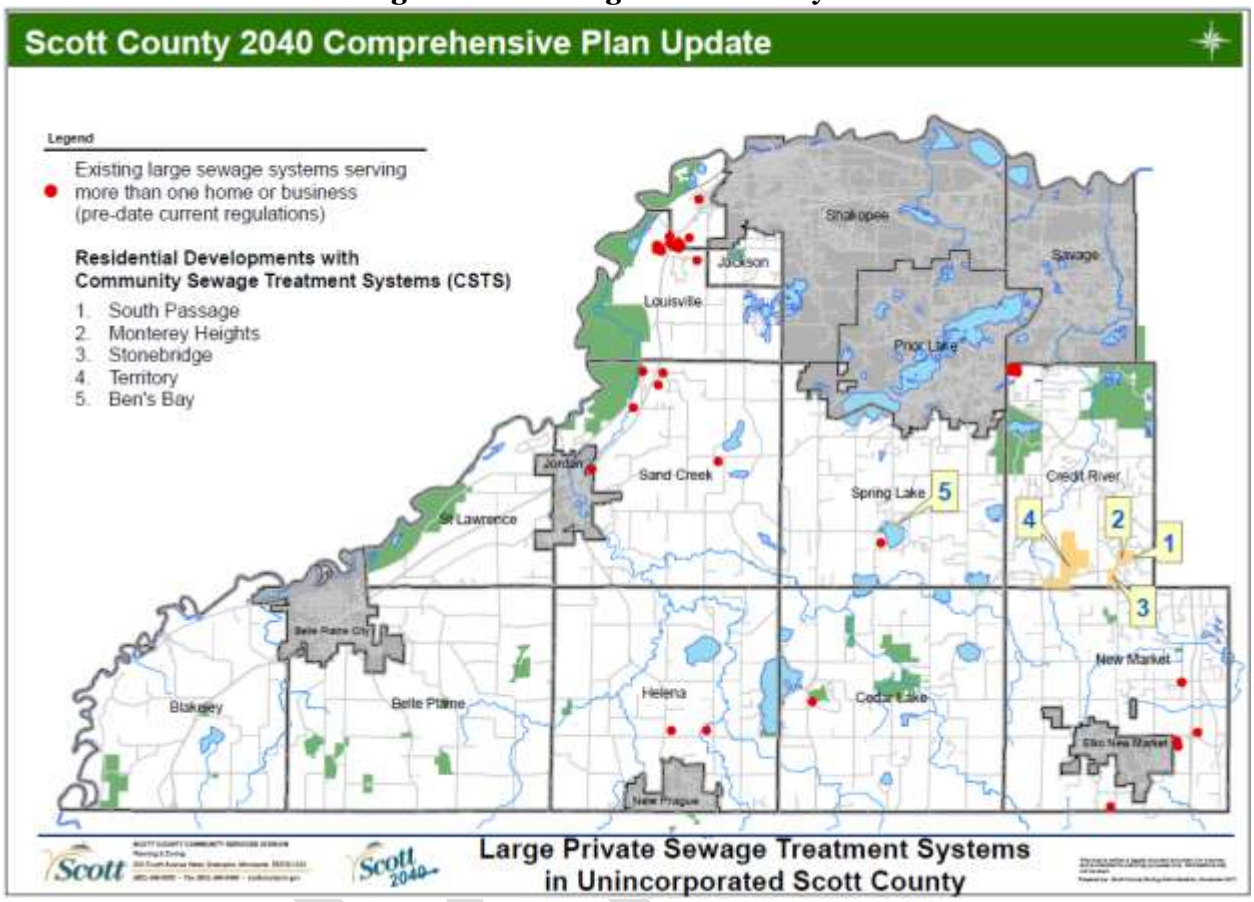
Scott County considers CSTS systems as a public value and, as such, it offers developers the ability to get more residential density if a publicly managed CSTS is used to serve the development. The County provides this incentive because of the advantages of a properly managed sewage treatment system over the uncertainty of maintenance of private individual systems. These advantages include better use of limited land when home lots are clustered, economies-of-scale to cover costs for roads and other infrastructure, and professional maintenance.

In Scott County, CSTSs are managed by a Township entity established under State law called a Subordinate Service District. Homeowners hooked up to a CSTS pay a monthly service fee, and included in that monthly payment is a fee that covers future replacement of the system. Subordinate Service Districts grant the townships authority to assess properties within the district if a property owner fails to pay these monthly service fees. Four townships have established such districts and hired professionals to manage the CSTSs under their control.

In 2007, both the State and County began exploring new options to permit and manage large sanitary treatment systems. Previously, a large system designed to manage a flow of greater than 10,000 gallons per day was reviewed and permitted by both the County and the MPCA. Any system designed to manage less than this amount was reviewed and permitted solely by the County. Performance based systems were not allowed in Scott County. In 2008, the MPCA made rule changes where they would review and permit all Type I, II, and III (performance based) systems designed to manage flows above 10,000 gallons per day.

As of 2017, there are five developments served by CSTS. Map XI-1 shows the names and locations of these developments, as well as existing large private sewage systems serving more than one home or business. A cluster development in Credit River Township called Territory served by CSTS is the single largest rural residential development ever proposed in Scott County not connected to a municipal sewage treatment system.

Map XI-1
Large Private Sewage Treatment Systems



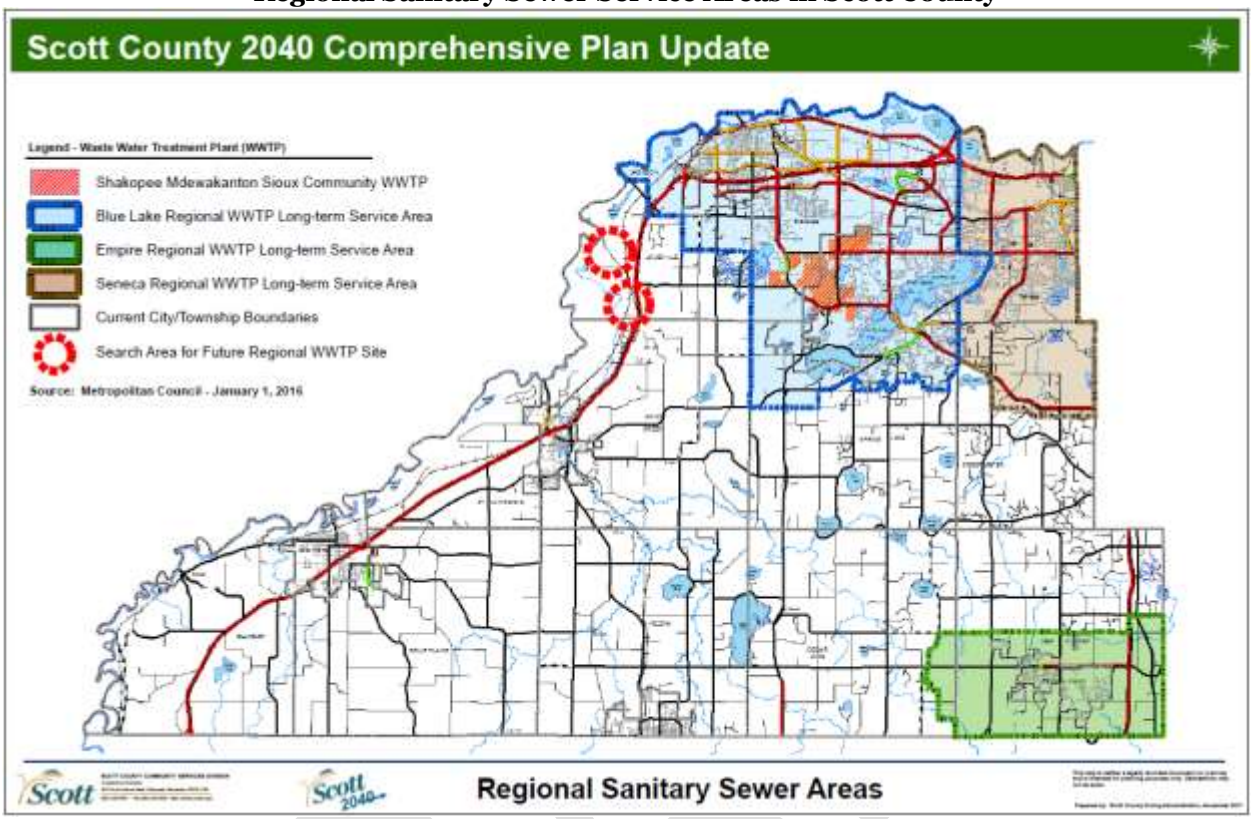
Source: Scott County Environmental Health Department

C. Municipal or Regional Sanitary Sewer Service

The County's seven cities are served by municipal or regional sanitary sewer service. The three northern cities (Shakopee, Prior Lake, and Savage) and one city along Interstate 35 (Elko New Market) have land within the Metropolitan Urban Service Area (MUSA) governed by the Metropolitan Council. The Council has designated through the city comprehensive planning process that only land within the MUSA will receive regional sanitary sewer service.

The MUSA boundary regulates the pattern of growth in the Twin Cities Metropolitan Area by restricting the extension of sanitary sewer service into the areas without adequate infrastructure. The four cities having land within the MUSA boundary are serviced by Blue Lake, Seneca, or Empire Wastewater Treatment Plants (WWTPs), with the long-term service areas shown in Map XI-2.

Map XI-2
Regional Sanitary Sewer Service Areas in Scott County



Source: Scott County GIS, Metropolitan Council,

The cities of Jordan, Belle Plaine, and New Prague operate their own wastewater treatment plants and sanitary sewer distribution systems. In 2006, the Shakopee Mdewakanton Sioux Community (SMSC) opened its own wastewater treatment plant to serve tribal land. Previously, sewer service for tribal land was provided in cooperation with the cities of Shakopee and Prior Lake and was treated at the Blue Lake regional plant. The SMSC facility treats wastewater through a filtration process that discharges reclaimed water into two wetlands. Reclaimed water can then be routed to an irrigation pond to be used to irrigate The Meadows at Mystic Lake Golf Course.

In order to meet the long-range (post 2040) needs of the growing population of the southwest metro area in Scott County, the Metropolitan Council is considering construction of a future treatment plant to serve the western portion of the county. Consistent with the Council's 2030 Regional Framework Plan and 2040 ThriveMSP plan, Scott County has partnered with the Metropolitan Council to jointly achieve the following objectives:

1. **Define the alternatives for long-term wastewater service area to Scott County, estimate associated wastewater flow, and identify conceptual capital facilities capacity requirements**.

2. **Identify alternative search areas for the Future County Regional WWTP.** Map XI-2 shows two potential search areas for the future Scott County WWTP site. These two search areas meet the site selection criteria: 80 acres or more in size, suitable soils and elevation, access to 9-ton highway, reasonable proximity to Minnesota River for

discharge and to water users for re-use, optimum location relative to staging wastewater service, and compatible with surrounding land uses.

The Search Area near the Louisville/Sand Creek township line, between Highway 169 and the Minnesota River, is generally guided and zoned for industrial uses. There are existing rural businesses and extraction uses in this general area. This search area is bounded to the west by land owned and managed by the U.S. Fish and Wildlife Service.

Parcels along this segment of Highway 169 are ultimately guided for commercial and industrial development connected to urban sewer and water and accessed by a frontage road along the highway. Any potential interim or final site development in this search area should incorporate this planned frontage road system. A future treatment plant in this area designed with a modest profile, aesthetic architectural elements, minimal odor emissions, and properly screened with natural landscaping/berming should be compatible with existing and planned surrounding land uses. A recently abandoned Union Pacific Railroad line runs through this search area and could be utilized as both an outlet to the Minnesota River and as a regional surface trail connection.

The Search Area along 130th Street in Louisville Township, between Highway 169 and the Minnesota River, is generally guided and zoned for industrial uses. There is an existing extraction use in this general area. This search area is also bounded to the west by land owned and managed by the U.S. Fish and Wildlife Service. A recently abandoned Union Pacific Railroad line runs through this search area and could be utilized as both an outlet to the Minnesota River and as a regional surface trail connection. A future treatment plant designed with a modest profile, aesthetic architectural elements, minimal odor emissions, and properly screened with natural landscaping/berming should be compatible with existing and planned surrounding land uses.

3. Develop a staging plan for wastewater service to Scott County.

The Scott County Planning Department and Metropolitan Council Environmental Services staff used a set of criteria, rationale and methods to define the post-2030 Long-Term Service Area for the future regional wastewater treatment plant. First, it was important to define the long-term service areas of the existing regional plants serving Scott County. Defining the long-term service area for the Blue Lake WWTP was coordinated through 2030 comprehensive planning efforts and updates completed by the cities of Shakopee and Prior Lake (in close coordination with Scott County and Met Council staff). Defining the long-term service area for the Seneca WWTP was primarily coordinated through 2030 comprehensive planning efforts and updates completed by the city of Savage and Credit River Township (in close coordination with Scott County and Met Council staff). The long-term service area for the Empire WWTP was established in the 2005 *Southeast Scott County Comprehensive Plan Update*.

The following is a set of criteria, rationale and methods that helped determine the long-range service area for Scott WWTP. The criteria essentially determined the County's end land use pattern with an ultimate rural service area and ultimate urban service area. Based on Met Council analysis, a future Scott WWTP could serve approximately 50,000 acres of developable land in the western and central portions of Scott County.

- **Existing lot patterns:** Areas with an abundance of existing homes or businesses on 2½- to 10-acre lots with individual septic systems should be planned for ultimate rural services and densities. In general, areas with an abundance of large, undeveloped parcels (generally greater than 10 acres) should be planned for ultimate urban services and densities.

  Rationale: An abundance of existing rural, small-lot land use patterns are major obstacles to future sewered development due to costly and disruptive impacts associated with public sanitary sewer service extension and assessment. These land uses when planned for and concentrated in a specific area create a low density land use type that responds to a market segment that has a history in Scott County and is consistent with the 2040 Vision.

  Methods: Existing land use map showing parcels, subdivisions and home sites.

- **Wetlands, lakes and topographic features**: Areas with abundant wetlands, lakes and rolling topography should be planned for ultimate rural services and densities. Areas with limited water features and flatter topography should be planned for ultimate urban services and densities.

  Rationale: Existing water features and rolling topography are obstacles to efficient and economic extension of urban-level infrastructure (e.g., streets, utilities).

  Method: Natural resource inventory maps for the eleven townships.

- **Natural resource and storm water management considerations**: Areas with abundant hydric soils, significant ecological resources, and eroded rivers and streams should be planned for ultimate rural services and densities.

  Rationale: Through lower-density development, the County can allow, encourage or require hydric soils artificially drained for agricultural use to revert to natural conditions, which in turn will: a) reduce existing stream erosion and lake and wetland degradation from siltation; b) reduce long-term costs for storm water management; and c) improve wildlife habitat and rural natural environment aesthetics.

  Method: Natural resource inventory maps for the eleven townships; Prior Lake/Spring Lake Watershed and Scott WMO plans and studies.

- **Transportation systems:** Areas with little to no *existing* or *planned* township roads to support a regional arterial and collector system should be planned for ultimate rural services and densities.

  Rationale: Urban densities should be served by a hierarchy of local, regional and state arterials and collectors.

  Methods: Township and County transportation plan maps; Transportation plan maps for the seven cities.

- **Groundwater supplies:** Sub-regions within a County with a limited supply of drinking water for municipal, high-capacity well use should be guided for rural services and densities.

Rationale: Depleted aquifers and diminishing drinking water supplies are becoming an obstacle to economical, efficient urban expansion in the metropolitan area.

Method: U.S. Geologic Atlas, regional groundwater study.

Based on this analysis, the 2040 Planned Land Use map illustrate a long-term staging plan for wastewater service in Scott County. These maps and images depict the 2040 service areas for regional and municipal wastewater service, as well as the post-2040 potential Long-Term Service Area (LTSA) for a future regional wastewater treatment plant. A land use staging approach is provided in the goals and descriptions for "urban expansion" and "transition" areas in Chapter V.

4. Develop strategies and processes for efficient and orderly development of Scott County.

The County will continue its approach - set in the 2020 plan - to promote clustered subdivisions within the Urban Expansion and Transition Areas by providing density incentives. Residential lot clustering in planned future urban growth areas is intended to allow for interim development while reserving the balance of the land area for future development when public utilities and services become available. Clustering options at a density of 1 unit per 10 acres will be allowed in both the Urban Expansion and Transition Areas if: a) 70% or more of the non-hydric land or b) 80% of more of the non-wetland in the subdivision can be preserved for future development. In addition to requiring reserved, developable open space for future development, the County will continue to require ghost platting or re-subdivision plans as part of the development approval process to illustrate compatible land use and lot arrangement relationships between the initial rural lots and future urban development. These ghost plats will need to demonstrate the ability to reach an overall gross density of 3 dwelling units per developable acre for the entire parcel when urban services become available. Achieving this overall gross density could be illustrated by showing single family, two-family, or multiple family residential "ghost" lots, or a combination thereof, and will be reviewed by the adjacent city to ensure compatibility with long-range city land use plans for the exurban area, if available. The Metropolitan Council will have an opportunity to review whether this overall gross density of 3 units per developable acre will be achieved as these rural interim cluster developments transition to urban services when adjacent cities formally annex these parcels and petition for MUSA expansion and city comprehensive plan amendments.

For CSTS developments in urban growth areas, the County is promoting a concept where the CSTS is owned by the township but operated by the adjacent municipality, which will likely serve the neighborhood when urban services become available. For the city, operation of the CSTS will not require any new staff or expertise, because operational services can be contracted out to the same private vendors that townships use. The city can benefit from this type of arrangement by: a) ensuring streets, sidewalks, and stormwater infrastructure are built to city specifications; b) setting up financial arrangements for future public sewer hook-up fees; and c) requiring orderly annexation agreements.

The cost to convert these interim rural developments and hook-up existing homes and lots to municipal infrastructure (i.e. sewer, water, roads) is a major issue. The traditional method of assessing properties under state statute authority coupled with bonding has been used by cities to fund the conversion of areas with on-site services to municipal services. However, this process is many times controversial and costly for all involved –

cities, townships, and affected property owners. As part of this joint study, the Scott County Planning Department identified other, alternative methods to fund these types of conversions:

- *Funding through the subordinate service districts*: The township through its authority under the Subordinate Sewer District (SSD) can secure funding using the special assessment and bonding procedure under Minn. Stat. Chap 429. The township could even consider requiring the developer to request that the SSD create a "capital conversion" fund to help off-set the costs of future conversion to municipal sewer as a "service" to the residents.
- *Funding through homeowner's association*: The development's homeowners association could also be set up to allow for an association managed fund dedicated to off-setting the costs of conversion from private ISTS to a municipal system.
- *Funding by the developer*: Another option would be to utilize the Public Value Incentive concept to allow a developer who contributes to a locally-managed "capital conversion" fund dedicated to off-setting the costs of future conversion as a way to qualify for greater density for their proposed development.

As Scott County continues to grow, it is likely that some lots and parcels in the unincorporated areas will be provided with urban services either through annexation by cities or by contract between cities and townships. There may also be an opportunity for townships to arrange for municipal sewer service to be extended into areas for new development or to serve lots with failing on-site septic systems. This type of arrangement has been demonstrated with the extension of municipal sewer service to parcels in Spring Lake Township along the south side of Spring Lake and to parcels around Cedar Lake in Cedar Lake and Helena Townships.

WATER SUPPLY

Water service is provided to city residents by their municipalities. In the townships, water is provided by private wells and community wells in limited cases. The Minnesota Department of Health (MDH) regulates the construction and functions of these private wells. Scott County Environmental Health Department provides water analysis and inspects contaminated wells.

A. Groundwater Protection

The increasing population growth intensifies land development pressure and also the potential for groundwater pollution through land development activity and land use changes.

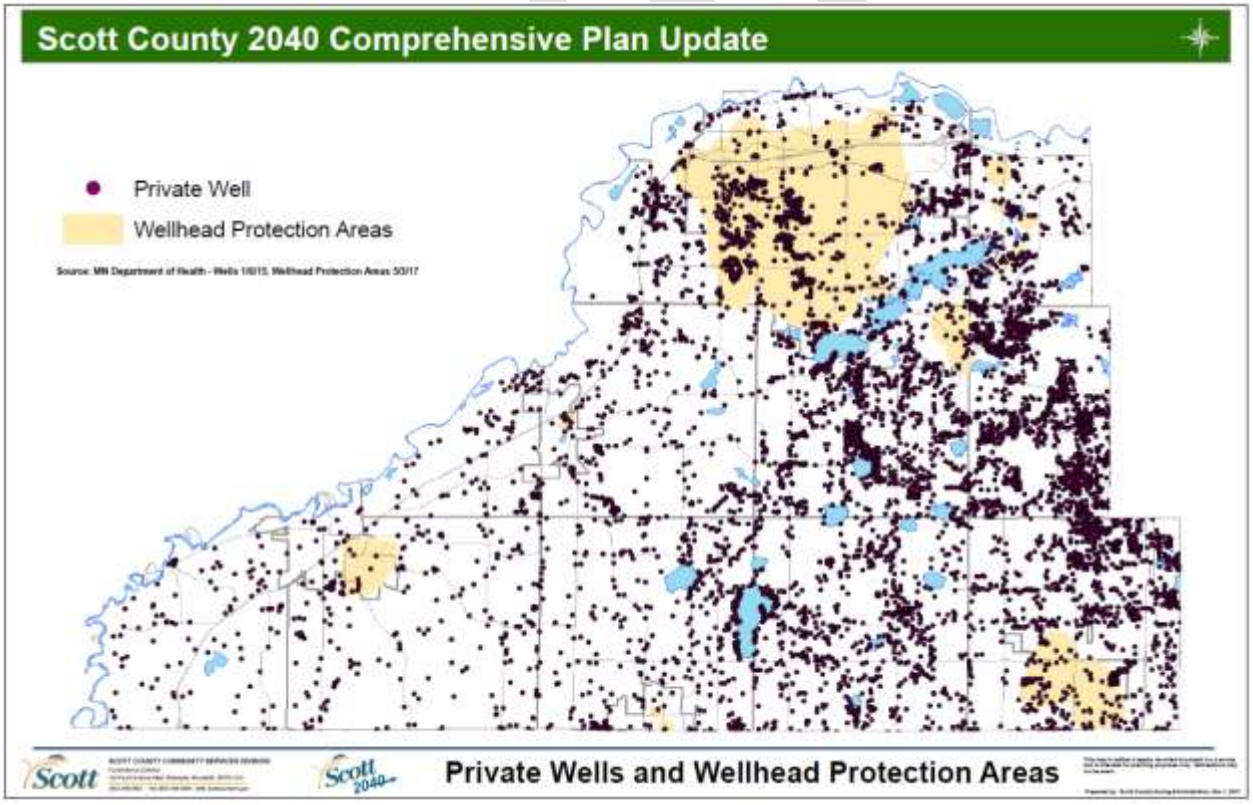
In 2007, the Minnesota Geological Survey published a revised and digitized Scott County Geologic Atlas through a joint project with Scott County. The first County Atlas was published in 1982. Since that time, thousands of new wells have been added to the water well database and land use patterns have changed considerably. The major project tasks included construction of six atlas plates, produced as paper maps and electronic (.PDF) files, and the production of geographic information system (GIS) files. The GIS files allow geologic information from the atlas to be combined with other public data, such as land use, census, soils data, or parcel information, to aid in decision making regarding development, reconstruction, or natural resource management. An evaluation of bedrock hydro-geologic attributes is also included in the Atlas, as well as a discussion of the Franconia Formation and Ironton-Galesville sandstones which are expected to be of increasing importance as a source of water as development moves further westward.

This 2040 Plan Update encourages the use of community water supply systems – where feasible - rather than individual wells as a means of protecting ground water resources and to recognize economies of scale. This Plan also encourages restoration of wetlands in areas of hydric soils that will provide multiple benefits to the environment, including increased ground water recharge. The land use patterns identified in this Plan also encourage ground water recharge for aquifers that serve the municipalities. Ground water - which comes to the surface in the lower bluff areas through springs and seeps - also contributes to several unique natural resources such as Boiling Springs, Eagle Creek (trout stream) and the Savage Fen wetland complex. This Plan's approach toward reduction of storm water runoff and restoration of hydric soils to pre-agricultural conditions of wetlands and recharge areas may also have a positive influence on these natural resources.

B. Well Protection

Wellhead protection of public water supplies is a means of protecting the ground water which will be withdrawn from a community well or well field. Since land uses near the well may impact or pollute the aquifer below, it is important to carefully monitor activities above the wellhead and aquifer recharge area. This area is regulated, and classified as a wellhead protection area (see Map XI-3), in order to maintain the quality of the water being extracted. Three factors that assist in delineating the wellhead protection area are velocity, direction of ground water flow, and length of time for contaminant degradation.

Map XI-3
Private Wells and Wellhead Protection Areas



Source: Scott County GIS

The 1986 Amendments to the Federal Safe Drinking Water Act (SDWA) established the Wellhead Protection Program to protect the ground waters of supply wells and well fields that contribute drinking water to public water supply systems. Under the SDWA each state must prepare a Wellhead Protection Program for the EPA. The MDH is under a state legislated mandate from the Minnesota Ground Water Protection Act of 1989 to develop wellhead protection rules and to prepare the State Wellhead Protection Plan for submittal to the EPA.

In the unincorporated areas, private wells are the predominant source for drinking water. Map XI-3 inventories approximately 6,633 active private wells in the cities and townships. It is important to identify and properly seal abandoned wells to prevent groundwater contamination. For example, if a public or private well casing is not grouted properly, surface water may percolate downward and act as a direct conduit for contaminants to the aquifer. Proper installation of wells and activities around wells should be monitored to reduce the potential for surface contamination to the aquifer.

SOLID WASTE & RECYCLING

Solid waste planning, and the implementation of alternatives to landfill burial, was established by Minnesota's Waste Management Act and related legislation. This service is funded by grants from the State of Minnesota. Waste management activities are County-wide, and include programs such as recycling, household hazardous waste (HHW) management, yard waste management, waste processing, waste reduction, problem waste management, and public education. These programs are coordinated with the State, municipalities, townships, and Scott County's Solid Waste Advisory Committee. Solid Waste regulation involves inspection and code enforcement of licensed solid waste facilities and licensed waste haulers, and the investigation of illegal dumping.

In 2012, the County adopted a *Solid Waste Management Master Plan* as an update to its 2005 management plan. The 2012 management plan recognizes that there has been an emerging level of cooperation and interaction between metropolitan counties in the area of solid waste program implementation. In 1998, Scott County declined to adopt proposed revisions to the six-county Joint Powers Agreement of the Solid Waste Management Coordinating Board (SWMCB), believing that the proposed changes were not consistent with the direction that Scott County has chosen relative to involvement of the private sector in solid waste service provision to Scott County residents. However, the 2012 Plan recognizes the benefits of continuing to coordinate programs between counties and identifies strategies to effectively interact with neighboring counties toward achieving complementary program implementation and public education.

The overall approach of the 2012 plan is to continue on the course that has been successful in Scott County in the following eight topical areas: source and toxicity reduction, recycling, waste processing, municipal solid waste (MSW) landfilling, non-MSW management, waste collection, solid waste governance, and cost and finance.

GAS AND ELECTRIC

Natural gas service is provided by Minnesota Energy Resources, Greater Minnesota Gas and CenterPoint Energy. Gas transmission lines that cross the county are owned and operated by MinnCann, Minnegasco and Northern Natural Gas. Electricity is provided by Minnesota Valley Electric Cooperative, Shakopee Public Utilities, New Prague Utilities, Dakota Electric and Xcel Energy. Transmissions lines running through the county are owned and operated by Great River Energy.

TELECOMMUNICATIONS

Mobile and land-based telecommunication services provide for the wireless transmission of voice and data and include cellular and personal communications services (PCS), paging and wireless Internet services and mobile radio communication**.** These services operate from wireless networks that depend on antenna devices and related equipment to transmit from a sender to one or more receivers. Such services are viewed as a utility service provider that benefits the community and its economic growth and vitality.

A telecommunications facility is generally defined as a facility, site, or location that contains one or more antenna, telecommunications towers or monopoles, a distributed antenna system (DAS), micro-cell or other miniaturization technology, alternative support structures, satellite dish antennas, other similar communication devices, and related equipment and site improvements used for transmitting, receiving, or relaying telecommunications signals. The County's zoning ordinance sets forth standards on siting and design issues used in evaluating land use applications for commercial wireless tower structures.

The growing demand for mobile network connectivity associated with increased smartphone ownership, greater mobile usage indoors and higher data rates is driving the evolution of mobile telecommunication networks. One approach to facilitating increased connectivity is a set of new technologies referred to as micro-cell or other miniaturized alternatives more commonly known as small cells which bring antennas closer to the end user. Additionally, providers have looked to government-owned rights-of-ways to install these new forms of cell towers because they provide a long term location that will never change ownership and stabilize rent.

Small cells are low-powered radio access nodes or base stations (BS) operating in licensed or unlicensed spectrum that have a coverage range from a few feet up to a few hundred feet. Small cells are deployed to increase the mobile network capacity and coverage in localized areas. They can be used to provide in-building or outdoor wireless service. Small wireless communications equipment supplements the traditional large tower and providers typically prefer locations on existing pole facilities, including utility poles, street lights and traffic signals.

During the 2017 legislative session, the Minnesota Legislature enacted amendments to Minnesota Statutes, Section 237.162 and 237.163. These amendments mandate statewide rules and procedures, including limits on local government fees and charges, application processing time limits, local zoning preemptions and other state-wide mandates that pertain to telecommunications facilities in locally managed public rights-of-way including special provisions for "small wireless facilities." In 2018, the County amended its Right-Of-Way Ordinance to set for standards for siting small wireless facilities.

RENEWABLE AND ALTERNATIVE ENERGY SOURCES

Renewable energy sources such as wind, solar, and geothermal energy provide emission-free energy options and an alternative electrical and heating supply for homes and businesses. The implementation of renewable energy sources can reduce the local demand for coal-based energy and improve the region's air and water quality.

In order to promote energy conservation and save on generation costs (especially during peak periods), most electric service providers offer rebate programs to customers that purchase solar panels, geothermal heating systems, or energy efficient appliances. Also, many of the local electric service providers now allow customers to exclusively purchase wind generated electricity. For customers wishing to install their own wind turbine, excess generated electricity not used on-site can be sold to their local service provider, allowing customers to re-coup initial infrastructure costs.

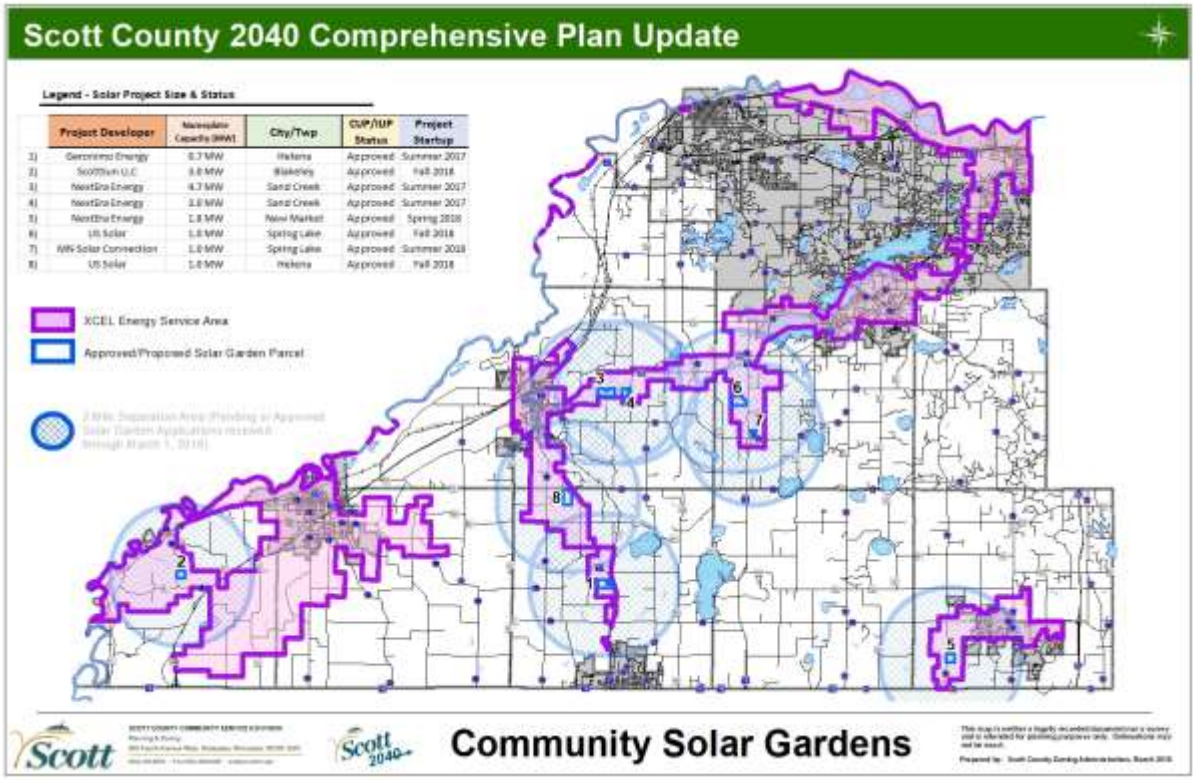
Scott County supports the use of renewable and alternative energy sources to reduce greenhouse gases and protect the natural environment. In high-growth areas such as Scott County, energy conservation is also encouraged to lower the need for additional power plants as the population continues to increase. On-site alternative energy sources can help accomplish this, but should also be compatible with surrounding land uses.

Across Minnesota, there has been an uptick in interest in Community Solar Gardens (CSGs) as a result of state legislation passed in 2013 requiring Xcel Energy to provide 1.5 percent of their energy from solar by 2020. The law also creates a goal of obtaining 10 percent from solar by 2030. CSGs are centrally located solar photovoltaic systems that provide electricity to participating subscribers. In response to growing interest from private landowners and the solar

industry to site CSGs in Scott County townships, staff consulted throughout 2015 with the Planning Commission, townships, neighboring cities and counties, landowners and solar garden developers to draft a first-ever community solar garden ordinance. The County Board adopted the ordinance in November 2015.

Since the adoption of the ordinance, the County Board has permitted five CSGs (two in Sand Creek Township, one in Helena Township, one in Spring Lake Township, one in New Market Townships). Staff is aware of three other potential CSG sites where applications have been submitted or are pending (one in Blakeley Township, one in Spring Lake Township, one in Helena Township). There are two CSGs in the cities (Shakopee and Belle Plaine). See Map XI-4 for locations of all permitted or pending CSGs in the townships as of Fall 2017.

Map XI-4
Community Solar Gardens



The Metropolitan Land Planning Act requires that comprehensive plans contain "an element for the protection and development of access to direct sunlight for solar energy systems." In the summer of 2017, the Metropolitan Council provided the county with a solar suitability analysis map, developed by the University of Minnesota and maintained by the Department of Commerce (see Map XI-5). The map shows solar insolation (total annual sun energy, measured in watts) data at a high resolution (1 meter). Solar insolation varies, but the most important factor affecting small-scale photovoltaic solar installations is intermittent shading due to nearby structures and trees. Areas in yellow on the countywide map show places with the potential to generate 900,000 – 1.2+ million watt-hours per year; the areas in black are places with the potential to generate less than 900,000 watt-hours per year.

The gross solar potential and gross solar rooftop potential are expressed in megawatt hours per year (Mwh/yr), and these estimates are based on the solar map for your community. These values represent gross totals; in other words, they are not intended to demonstrate the amount of solar likely to develop within your community. Instead, the calculations estimate the total potential resource before removing areas unsuitable for solar development or factors related to solar energy efficiency.

Community[1]	Gross Potential (Mwh/yr)	Rooftop Potential (Mwh/yr)	Gross Generation Potential (Mwh/yr)[2]	Rooftop Generation Potential (Mwh/yr)[2]
Scott County[3]	703,503,600	9,203,949	70,350,360	920,395

[1] There are a few communities where generation potential calculations could not be produced. There are areas within some maps where data was unusable. These areas were masked and excluded from gross rooftop potential and generating potential calculations.

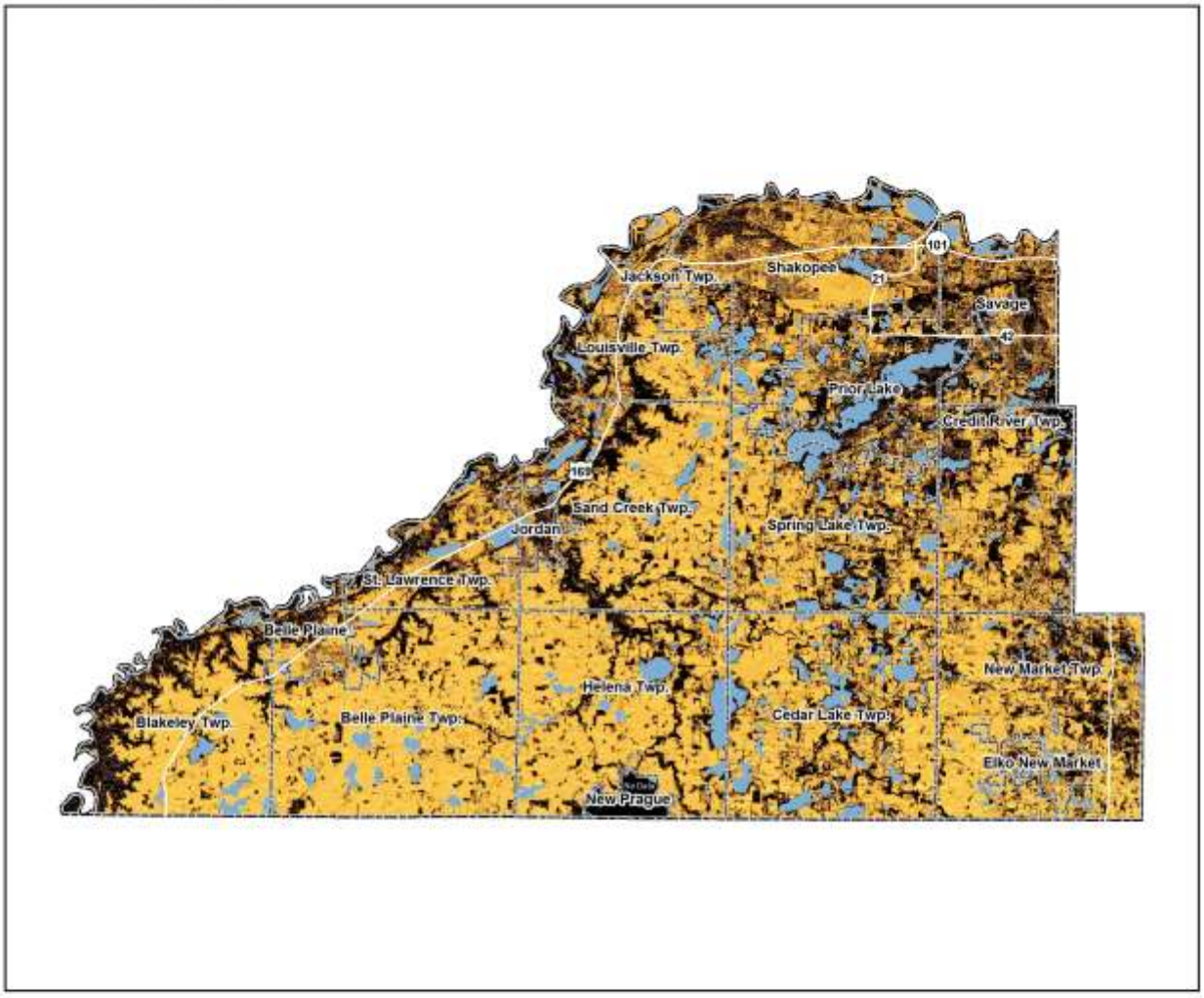
[2] In general, a conservative assumption for panel generation is to use 10% efficiency for conversion of total insolation into electric generation. These solar resource calculations provide an approximation of each community's solar resource. This baseline information can provide the opportunity for a more extensive, community-specific analysis of solar development potential for both solar gardens and rooftop or accessory use installations. For most communities, the rooftop generation potential is equivalent to between 30% and 60% of the community's total electric energy consumption. The rooftop generation potential does not consider ownership, financial barriers, or building-specific structural limitations.

[3] Excludes the City of New Prague part in Scott County.

The gross solar generation potential and the gross solar rooftop generation potential for your community are estimates of how much electricity could be generated using existing technology and assumptions on the efficiency of conversion. The conversion efficiency of 10% is based on benchmarking analyses for converting the Solar Suitability Map data to actual production, and solar industry standards used for site-level solar assessment.

Gross Solar Potential
Scott County

Map XI-5



7/3/2017

0 2.5 5 10 15
Miles

Gross Solar Potential
(Watt-hours per Year)

High : 1294074

Low : 900001

Solar Potential under 900,000 watt-hours per year
County Boundaries
City and Township Boundaries
Wetlands and Open Water Features

Source: University of Minnesota U-Spatial Statewide Solar Raster.

COUNTY FACILITIES

Scott County occupies 574,144 gross square feet of owned and leased space. Most buildings are headquartered in three locations: 1) Government Center campus in downtown Shakopee; 2) Public Works campus near Prior Lake; and 3) Workforce Development Center in Shakopee. These buildings accommodate a growing number of government workers and visitors. The number of staff grew from 450 in 1990 to more than 750 (full time equivalent) employees in 2017. According to the Minnesota Counties Intergovernmental Trust (MCIT), the estimated total value of all County facilities and assets is $137.2 million as of 2012.

The number and use of today's buildings have expanded the County's presence considerably since the first Courthouse was constructed in the late 1850s. Since then, the original Courthouse has been removed and replaced with the Government Center complex in downtown Shakopee comprising of an Administration Center (constructed in 1976) and Justice Center (constructed in 1998). In the past 20 years, the County has built, acquired, or cooperated in building the following facilities:

- Justice Center (1998) $14 million
- Juvenile Alternative Facility (1998) $500,000
- Work Force Development Center (1999) $7.5 million
- Extension and Conservation Center (2000) $1.3 million
- Household Hazardous Waste Facility (2001) $900,000
- Law Enforcement Center (2005) $34.5 million
- SCALE Regional Training Facility (built in 1900, re-purposed in 2008) $5 million
- Marschall Road Transit Station (built in 2001, re-purposed in 2013) $5.6 million

While some buildings meet current service and employee needs, a number of departments have or will soon grow beyond their existing office spaces. As the County continues to hire additional employees to keep up with the pace of the growing population, additional space will be required. Scott County plans and prepares for the major cost of new buildings and office space in the five-year Capital Improvement Plan (reviewed annually) and the 15-year Facilities Plan. These plans address future growth needs by assessing options to accommodate growth and preparing an orderly, fiscally responsible timeline for new growth to occur.

In 2016, Wold Architects and Engineers was commissioned by Scott County to develop a staffing and building use needs study for short and long-term use, The 2016 study recommends bringing most county services and employees to the Government Center campus with the construction of a new building that would house Health and Human Services staff, a mental health center, and staff from the workforce development center. Staff working in the Public Works building and Marshall Road Transit Station would also relocate to the Government Center campus. Figure XI-6_shows a concept site plan for the Government Center campus expansion with the new building and parking lots in phases. The County is planning to bond for these facility expansions and building remodeling with construction targeted for 2019 – 2021.

Figure XI-6
County Government Center Campus Expansion

Currently, a "one-stop" centralized location for most citizen services is located at the Government Center campus in downtown Shakopee. On average, roughly 5,500 people visit the main customer service counter at the Administration Center on a monthly basis. In 2012, the County added a customer service center in the Elko New Market library to better serve residents in the southeastern part of the county

The County has also begun efforts to make services and information more readily available for residents through the internet. Providing on-line service will be an important aspect for future County facilities, as it may impact the amount of space needed and the use and location of these facilities.

TOWNSHIP FACILITIES AND SERVICES

The eleven township governments in Scott County provide and maintain their own facilities, utilities and development-related services. All townships (except Louisville and Sand Creek) own town hall buildings–ranging from an old school house in Blakeley to newly constructed buildings in New Market and Spring Lake–where town clerks, consultants, and elected boards conduct official business.

In Scott County, the eleven townships serve as the local planning and maintenance authority for roads and storm water management systems. All eleven townships (except Sand Creek) administer wetland conservation rules. A few townships own and operate local parks (Spring Lake, Credit River, New Market and Jackson). Some of the townships have created Subordinate Service Districts to operate community sewage treatment systems (CSTS) as part of larger open space cluster developments (Helena, Cedar Lake, and Credit River).

The following lists township responsibilities as related to facilities, utilities and development-related services:

- Create standards/plan for local roads;
- Approve road designs in subdivisions;
- Maintain roads and manage access;
- Own, manage, and maintain drainage and utility easements;
- Review wetland delineation reports;
- Approve wetland exemptions/replacement plans;
- Prepare and adopt local park plans;
- Collect local park dedication fees; and
- Acquire and manage parks and open space.

UTILITY AND LOCAL GOVERNMENT FACILITY GOALS AND POLICIES

Goal #XI-1 Scott County enforces Individual Sewage Treatment System regulations consistent with State law and the Minnesota Pollution Control Agency (MPCA) Rules.

a. Scott County shall maintain its countywide ISTS Ordinance in consistency with Minnesota Pollution Control Agency Rule 7080 through 7083.

b. Scott County supports an ISTS maintenance program to ensure protection of public health and prevent untimely replacement of individual sewage systems.

Reason: This is consistent with State standards and rules to protect the health, safety and welfare of residents.

Goal #XI-2 Scott County supports publicly managed sewer utilities to allow for more judicious use of land and easier conversion to municipal services and considers these utilities a public value.

a. Scott County promotes publicly managed community sewage treatment systems (CSTS) that comply with all State, County, and Township regulations as an alternative to individual systems provided ongoing monitoring and maintenance is addressed and the systems are determined to be adequate/acceptable by each governmental unit.

b. For CSTS systems larger than 10,000 gallons, Scott County will defer to the MPCA for permitting both standard and performance-based systems and not require a separate permit or operating license from the County.

c. For CSTS systems smaller than 10,000 gallons, Scott County will require a permit for both standard CSTS systems and performance-based CSTS systems with a standard drainfield site. The County will develop criteria required for County permit applications for both CSTS systems to enable designers to expedite the process of designing the system. The developer shall be responsible for designing and applying for a County permit for a CSTS system. The Townships shall participate in the review of the County's CSTS permit.

d. Scott County will explore new options in permitting, managing, and operating CSTS systems in light of evolving MPCA rules and new technology.

Reason: Deferring to the MCPA for permitting CSTS systems larger than 10,000 gallons will reduce the redundancy of review between the County and the State. The County will continue to have a permitting process for CSTS systems smaller than 10,000 gallons.

The County is promoting developments with publicly managed CSTS ~~or ISTS~~ utilities because it allows for clustered, interim rural development before municipal services are available to build-out the remainder of the parcel at urban densities.

Goal #XI-3 Scott County will, in cooperation with the Metropolitan Council, cities, townships, and special purpose districts, continue to plan for public sanitary sewer service to the Urban Expansion and Transition areas.

a. Scott County supports growth management policies to reflect the logical, efficient staging of public sanitary sewer service in the Urban Expansion and Transition areas.

b. Scott County will work with city and township staff to develop criteria and standards for interim engineering, legal, and financial arrangements for neighborhoods with publicly managed sewer and water utilities planned for eventual conversion to urban services.

Reason: The County supports methods to ensure there will be financial incentives in place when an interim rural development is hooked up to municipal sewer and water services. These incentives will offset the cost for hook-up fees and make the conversion less costly for the homeowners and community providing the public service.

Goal #XI-4 Scott County supports the development of a regional water supply plan prepared in cooperation with water utilities and in coordination with local, regional and state governments.

a. Scott County will update its groundwater plans to reflect the findings in the Metropolitan Council's regional groundwater study.

Reason: The availability of groundwater to support a growing population will continue to be an increasingly important issue to consider in long-range plans for Scott County.

Goal #XI-5 Encourage the local production of solar photovoltaic energy to the extent feasible, while minimizing potential biological, agricultural, visual, and other environmental impacts.

a. Establish clear guidelines and siting criteria for community solar garden (CSG) development in those zoning districts where community solar is a permitted interim or conditional use.

Goal #XI-6 Construct and maintain county facilities in accord with expected levels of service objectives and fiscal limitations.

a. Program the construction and maintenance of county facilities through the county's Capital Improvement Program.

b. Construct new facilities in size and quantity which is consistent with projected population needs.

c. Ensure adequate maintenance of existing facilities

d. Explore opportunities through the University of Minnesota's Resilient Communities Program or similar student-led research programs to address items such as researching technical and operational requirements for operating a "24/7" open library facility, and analyzing trends and future demands on the HHW facility.